



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,442	05/31/2001	Bomi M. Bilimoria	07990.0023	1219

22852 7590 10/25/2002

FINNEGAN, HENDERSON, FARABOW, GARRETT &  
DUNNER LLP  
1300 I STREET, NW  
WASHINGTON, DC 20006

EXAMINER

LOVERING, RICHARD D

ART UNIT	PAPER NUMBER
----------	--------------

1712

DATE MAILED: 10/25/2002

S-

Please find below and/or attached an Office communication concerning this application or proceeding.

TC 5

# Office Action Summary

Application No.  
09/870,442

Applicant(s)  
BILIMORIA

Examiner  
LOVERING

Group Art Unit  
1712

--The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address--

## Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on AUG 22, 2002
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-6 AND 8-43 is/are pending in the application.
- ☐ Of the above claim(s) is/are withdrawn from consideration.
- ☐ Claim(s) is/are allowed.
- ☒ Claim(s) 1-6, 8-11, 13-19, 22, 32-35 AND 38-43 is/are rejected.
- ☒ Claim(s) 12, 20, 21, 23-31 AND 36 is/are objected to.
- ☐ Claim(s) are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_
  - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 4
- ☐ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

Office Action Summary

Art Unit 1712

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims (1) 6, 8-11, 13, 17, 32, 37-39 and 41-43 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nakazawa et al. 4,622,166 <sup>H</sup> of record. The instantly-claimed method for improving the shear rheology of a fluid particulate suspension and resulting product are anticipated by Nakazawa et al. (esp. Example 7), or are at least clearly within the purview of Nakazawa et al., and thus would have been obvious therefrom to one having ordinary skill in the art at the time applicant's invention was made. The colloid mill used in patentees' Example 7 is known to be of the rotor-stator type. <sup>(see col. 9 ll 31-37)</sup> Addressing the 103 aspects of this ground of rejection: As to claims 4 and 6 herein, Nakazawa et al.'s disclosure of the use of the water-soluble acrylic resins as dispersants (column 8, lines 39-51, esp. line 51) renders the use of Na polyacrylate prima facie obvious. As to claim 11 herein, the use of a Kady mill instead of a colloid mill in Example 7 of Nakazawa et al. is rendered prima facie obvious by patentees' disclosure of their interchangeability in column 9, lines 28-37. As to claim 32 herein, zeolites are notoriously old as pigments, although Nakazawa et al. do not specifically disclose this.

Art Unit 1712

3. Applicant's arguments filed August 22, 2002 have been fully considered but they are not deemed to be persuasive. As stated previously, the colloid mill of Example 7 of Nakazawa et al. is known to be of the rotor-stator type. As to claim 11 herein, the only claim requiring a Kady mill, Nakazawa et al. (column 9, lines 28-37) disclose the interchangeability of a Kady mill with a colloid mill of Example 7, and when equivalents are interchangeable for a desired function, an express suggestion of the desirability of the substitution is not needed to render such substitution obvious. See In re Siebentritt, 152 USPQ 618. Nakazawa et al. (column 2, lines 42-56; and paragraph bridging columns 4 and 5) teach that their suspensions have low viscosity which one skilled in the art would expect to apply to both low shear and high shear rheology.

4. Claims 22 and 43 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. *Ray*

Claims 22 and 43 recite Markush groups which are not considered proper for the reasons that they are indefinite as to scope and incomplete as to their memberships in not reciting --the group consisting of-- after "chosen from". *Ray Cl. 22 & 43*

5. The indicated allowability of claims 14-16, 18 and 33-34<sup>5</sup> is withdrawn in view of the newly discovered reference(s)

Art Unit 1712

to Millman et al. 3,106,476 and Freeman et al. 6,402,824.

Rejections based on the newly cited reference(s) follow.

6. Claims <sup>see table IV</sup> 1, 5, 8-11, 13, 16-18, 32, 33, 38, 41 and 42 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by <sup>AP 3106476</sup> Millman et al. esp. Examples 2-5. *Unsub Brookfield & Hayman*

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

8. Claims 1-6, 8-10, 13-19, <sup>drop</sup> 32, 34, 35 and 39-42 are rejected under 35 U.S.C. 102(e) <sup>as</sup> as being clearly anticipated by <sup>AB</sup> Freeman et al. 6,402,824 esp. Examples II and III, with reference to Table 4 which reports a pH of 9.1-9.3. *Both Brookfield & Hayman*

9. Claims 33 and 38 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Freeman et al. above. The especially pertinent portions of Freeman et al. are pointed out in the preceding paragraph. While Freeman et al. may not use kaolin clay or  $\text{TiO}_2$  in their Examples II and III, it would have been obvious to one skilled in the art at the time applicant's

Art Unit 1712

invention was made to do so in combination with their precipitated calcium carbonate to prepare a suspension useful in coating paper in view of patentees' suggestion to do this in column 12, lines 52-57.

10. Claims 12, 20, 21 and 23-31<sup>and 36</sup> are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claim 22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112 set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record doesn't disclose or fairly suggest the embodiments of applicant's method covered by claims 12, 20 and 21-31<sup>and 36</sup> herein.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Lovering whose telephone number is (703) 308-0443. The examiner can normally be reached on Mon.-Fri. from 7:30 A.M. to 4:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Dawson, can be reached on (703) 308-2340. The fax phone number for this Group is (703) 872-9310.

649 not entered ✓

Serial No. 09/870,442

-6-

Art Unit 1712

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

R. Lovering:cdc  
October 24, 2002

*Richard D. Lovering*  
RICHARD D. LOVERING  
PRIMARY EXAMINER  
GROUP ~~1200~~ 1700